

ABSTRACT OF THE DISCLOSURE

There is provided a base station transmitter in a CDMA system, comprising: a base station modem for direct-spectrum spreading PCM data to an I-channel and Q-channel; a digital combiner for summing up the spectrum-spread CDMA signals by 5 sectors; a digital signal processor for making the data rate of the digital base-band CDMA signals outputted from the digital combiner twice; and an RF processor for converting the digital base-band CDMA signals outputted from the digital signal processor into analog RF CDMA signals, in which the digital signal processor includes first and second serial-to-parallel converters for converting the CDMA signals outputted 10 from the digital combiner into parallel signals, first and second phase equalizers for compensating the phases of the converted parallel digital CDMA signals, and third and fourth FIR filters for filtering the digital CDMA signals whose phases were compensated with a predetermined sampling frequency to make the digital CDMA signals have the data rate twice that of the signals inputted thereto.